

Conclusions. Patient preparation is crucial for accurate automatic delineation. It's expected that the bigger the number of library patients the higher the score of the matching. Careful selection of patients to be added to the atlas and adequate contouring by the radiation oncologist should be made.

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Bicalutamide versus medical castration coadjuvant to radiotherapy in prostate cancer

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Introduction. External beam radiotherapy (EBRT) with coadjuvant hormonal therapy (HT) is a reliable alternative to surgery in patients with locally advanced prostate cancer.

Purpose. To analyze a case of our service and to review the literature on the efficacy and tolerability of bicalutamide versus medical castration, coadjuvant to EBRT.

Methods. Retrospective analysis of a clinical case and review of the literature.

Results. 67 years old patient, diagnosed with high-risk prostate adenocarcinoma: prostate-specific antigen (PSA) = 25.45 ng/ml. Gleason score: 4 + 5 bilateral. Clinical T3a. Perineural invasion. Negative bone scan. CT: seminal vesicle invasion. Treatment alternatives: Radical surgery vs EBRT + HT. The patient chooses the RTE because he wants to preserve sexual function. Androgen deprivation options: central action with RHLH analogues vs peripheric action with bicalutamide. The patient selects the second for the same reason. After 3 months of HT with bicalutamide 150 mgr, PSA nadir is 2.13 ng/ml. Then get EBRT on a volume that covers prostate, seminal vesicles and risk iliac lymph nodes, with good tolerance. Proceed with bicalutamide for three years. Post-EBRT biochemical control: PSA = 1.6 ng/ml, without significant toxicity. After 24 months of follow up, continuing with bicalutamide, asymptomatic and sexually active. Mild bilateral gynecomastia and breast pain. Local exploration: fibrotic prostate nodule in the right lobe. PSA < 0.03 ng/ml. The HT with EBRT shows a significant increase in progression-free survival and overall survival in patients with locally advanced prostate cancer. Bicalutamide with EBRT reduce the risk of death at similar rates to medical castration (25–30%). Compared with medical castration, bicalutamide monotherapy provides a higher quality of life and tolerance, and lower rates of hot flashes, although gynecomastia and breast pain have a higher incidence.

Conclusions. Bicalutamide monotherapy should be considered as a valid alternative in the hormonal treatment of locally advanced prostate cancer.

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Biochemical control of prostate cancer treated with brachytherapy (125I)

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Introduction. Brachytherapy for prostate cancer has established itself in recent years as the first line treatment in selected patients with localized prostate cancer.

Objectives. To analyze characteristics and biochemical control of patients treated with 125I brachytherapy since the introduction of the technique in our department.

Materials and methods. Between July-07 and January-13 a total of 144 implants have been performed. For the study we analyzed retrospectively 100 patients (minimum follow-up 1 year). We analyzed age, neoadjuvant hormonal therapy, PSA, Gleason score, T stage, risk group, number and time to nadir and biochemical control (Phoenix criteria). Statistical analysis: We performed a descriptive study calculating mean and standard deviation for quantitative variables and absolute frequencies and percentages for qualitative variables. We performed a survival analysis using Kaplan–Meier method to calculate the biochemical control.

Results. Mean age was 64.6 ± 6.6 years (49–75). 17% had started androgen deprivation therapy. Mean PSA was 5.8 ± 1.7 ng/ml (2.4–9.7). Gleason score 6 was the most frequent (93%), followed by 5 (4%) and 7 (2%). Distribution by stages: T1c (96%), followed T2a (4%). Risk group: low (98%), intermediate (2%). Mean nadir was 0.74 ± 0.93 ng/ml (0.0–5.8) and median time to reach it 22.2 ± 15.3 months (3.7–57). 6 patients had biochemical recurrence. With a median follow up of 36.4 months (12–64), biochemical control at 2 and 4 years was 97.3% and 86.2% respectively.

Conclusions. 125I brachytherapy as radical treatment in selected patients with localized prostate carcinoma achieves optimal results in terms of biochemical control. The results obtained in our series are equivalent to those described in the literature.

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